United States Patent [19]

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[11] **Patent Number: 4,620,295**

[45] **Date of Patent: Oct. 28, 1986**

[54] **METHOD FOR ACCESSING A DATA SET IN A WORD PROCESSING SYSTEM**

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[21] Appl. No.: **586,594**

[22] Filed: **Mar. 6, 1984**

[30] **Foreign Application Priority Data**

Mar. 7, 1983 [JP] Japan 58-36087

[51] **Int. Cl.**[4] **G06F 1/00**

[52] **U.S. Cl.** **364/900**

[58] **Field of Search** ..... 364/900 MS File

[56] **References Cited**

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[57] **ABSTRACT**

A word processing system is disclosed in which a text stream is stored on a direct access storage device (DASD) for recall and editing. The text stream is organized into a document, which is stored on the DASD as a data set. The data set consists of an index portion and a portion containing text records. The index portion is divided into nodes, of which the primary node is called the root node. When the system operator designates a data set for use, the root node is fetched and retained in a system memory to eliminate the need to fetch it from the DASD for every access. When sequential records are accessed, such as during a document duplication operation, the index is fully searched only for the first of the sequential records. Subsequent records are located through index nodes already in the system memory, with subsequent index nodes being fetched from the DASD only when the last index entry in the current index node has been processed. When sequential records are written to the DASD, the index is fully searched only for the insertion point for the first record. For subsequent records, the same index node is updated until there is insufficient room for index entry for the latest record written to the DASD. At that time the index node is split and index entries at higher levels of the index are updated in a similar manner.

7 Claims, 20 Drawing Figures